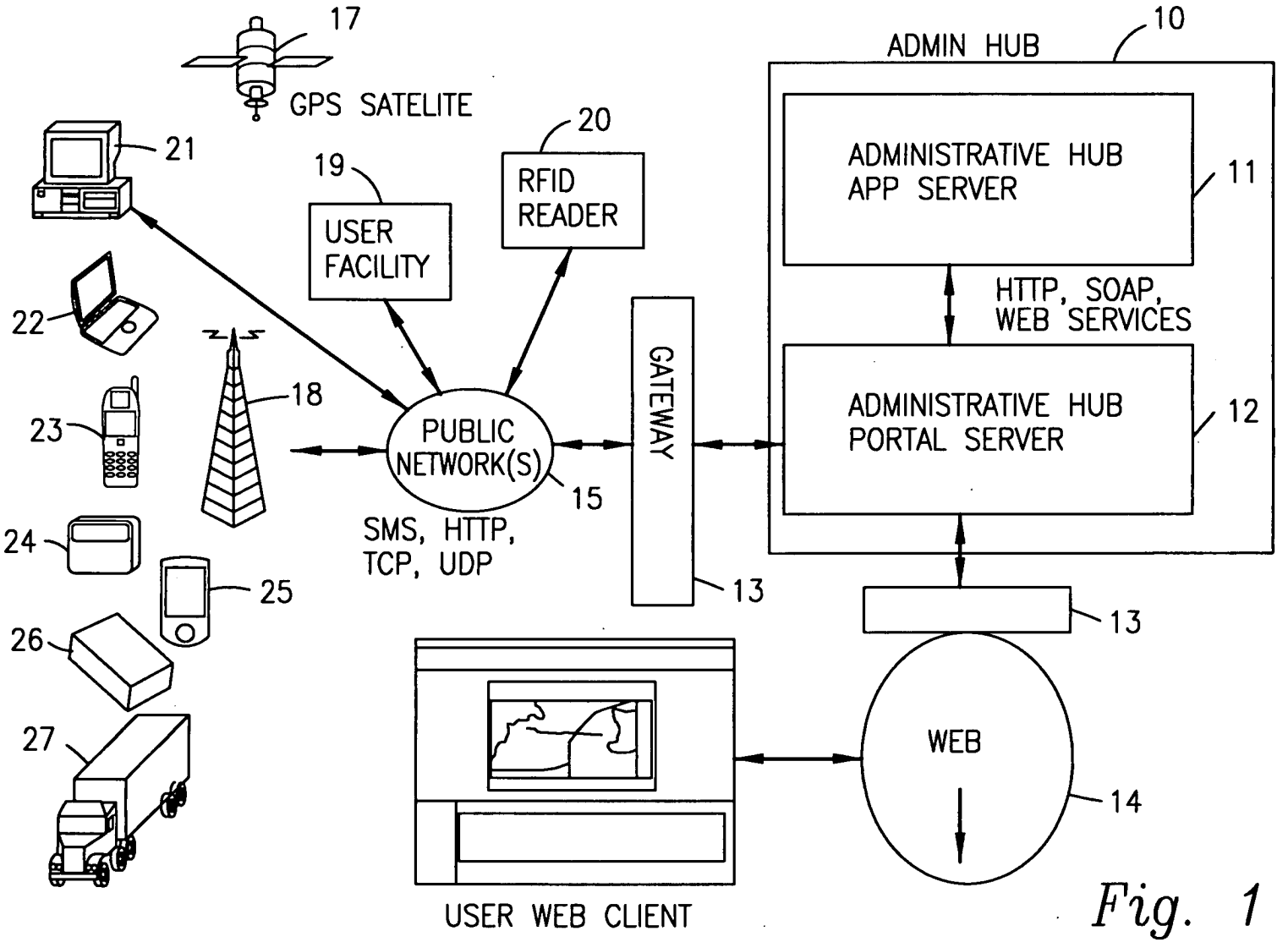

17
GPS SATELITE
ADMIN HUB
10
21
19
USER FACILITY
20
RFID READER
ADMINISTRATIVE HUB APP SERVER
11
HTTP, SOAP, WEB SERVICES
22
18
23
PUBLIC NETWORK(S)
15
GATEWAY
ADMINISTRATIVE HUB PORTAL SERVER
12
SMS, HTTP, TCP, UDP
24
25
13
13
26
27
WEB
14
USER WEB CLIENT

Fig. 1

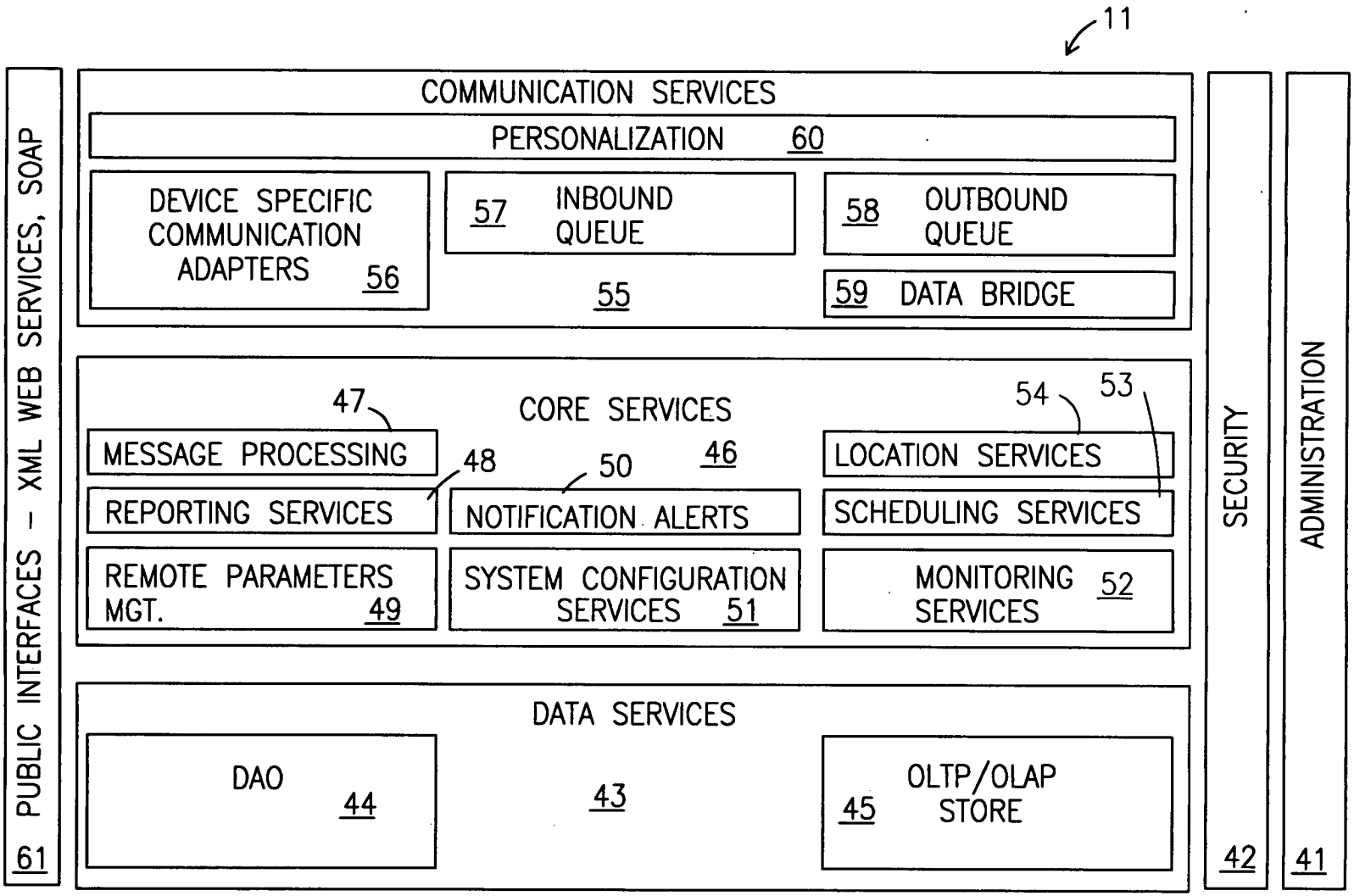

11
61 PUBLIC INTERFACES - XML WEB SERVICES, SOAP
COMMUNICATION SERVICES
PERSONALIZATION 60
DEVICE SPECIFIC COMMUNICATION ADAPTERS 56
57 INBOUND QUEUE
58 OUTBOUND QUEUE
55
59 DATA BRIDGE
47
CORE SERVICES
54
53
MESSAGE PROCESSING
48
50
46
LOCATION SERVICES
REPORTING SERVICES
NOTIFICATION ALERTS
SCHEDULING SERVICES
REMOTE PARAMETERS MGT. 49
SYSTEM CONFIGURATION SERVICES 51
MONITORING SERVICES 52
DATA SERVICES
DAO 44
43
45 OLTP/OLAP STORE
42 SECURITY
41 ADMINISTRATION

Fig. 2

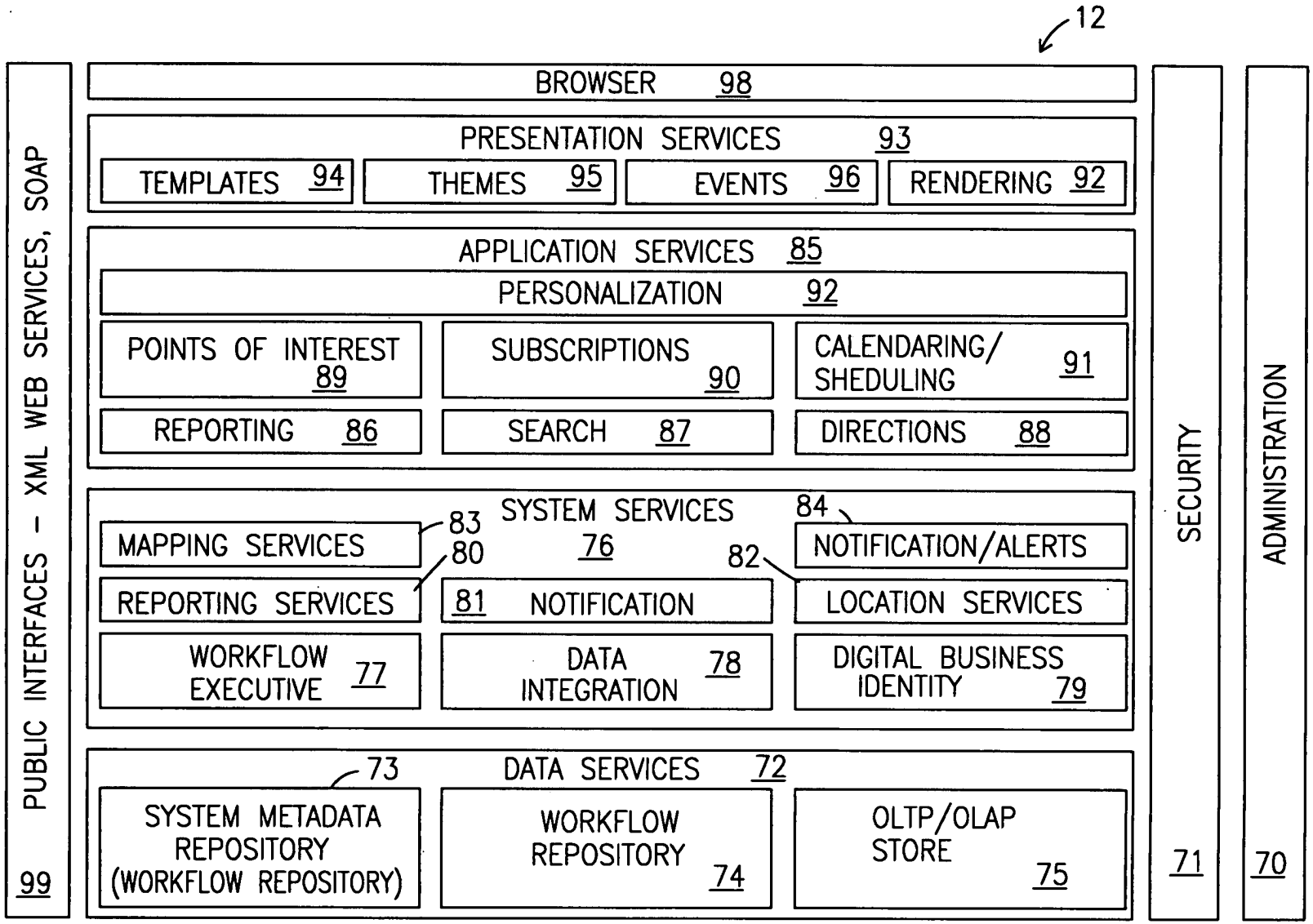

12
BROWSER 98
PRESENTATION SERVICES 93
TEMPLATES 94
THEMES 95
EVENTS 96
RENDERING 92
APPLICATION SERVICES 85
PERSONALIZATION 92
POINTS OF INTEREST 89
SUBSCRIPTIONS 90
CALENDARING/ SHEDULING 91
REPORTING 86
SEARCH 87
DIRECTIONS 88
SYSTEM SERVICES 76
83
84
MAPPING SERVICES
80
NOTIFICATION/ALERTS
82
REPORTING SERVICES
81 NOTIFICATION
LOCATION SERVICES
WORKFLOW EXECUTIVE 77
DATA INTEGRATION 78
DIGITAL BUSINESS IDENTITY 79
DATA SERVICES 72
73
SYSTEM METADATA REPOSITORY (WORKFLOW REPOSITORY)
WORKFLOW REPOSITORY 74
OLTP/OLAP STORE 75
PUBLIC INTERFACES - XML WEB SERVICES, SOAP
99
SECURITY
71
ADMINISTRATION
70

Fig. 3

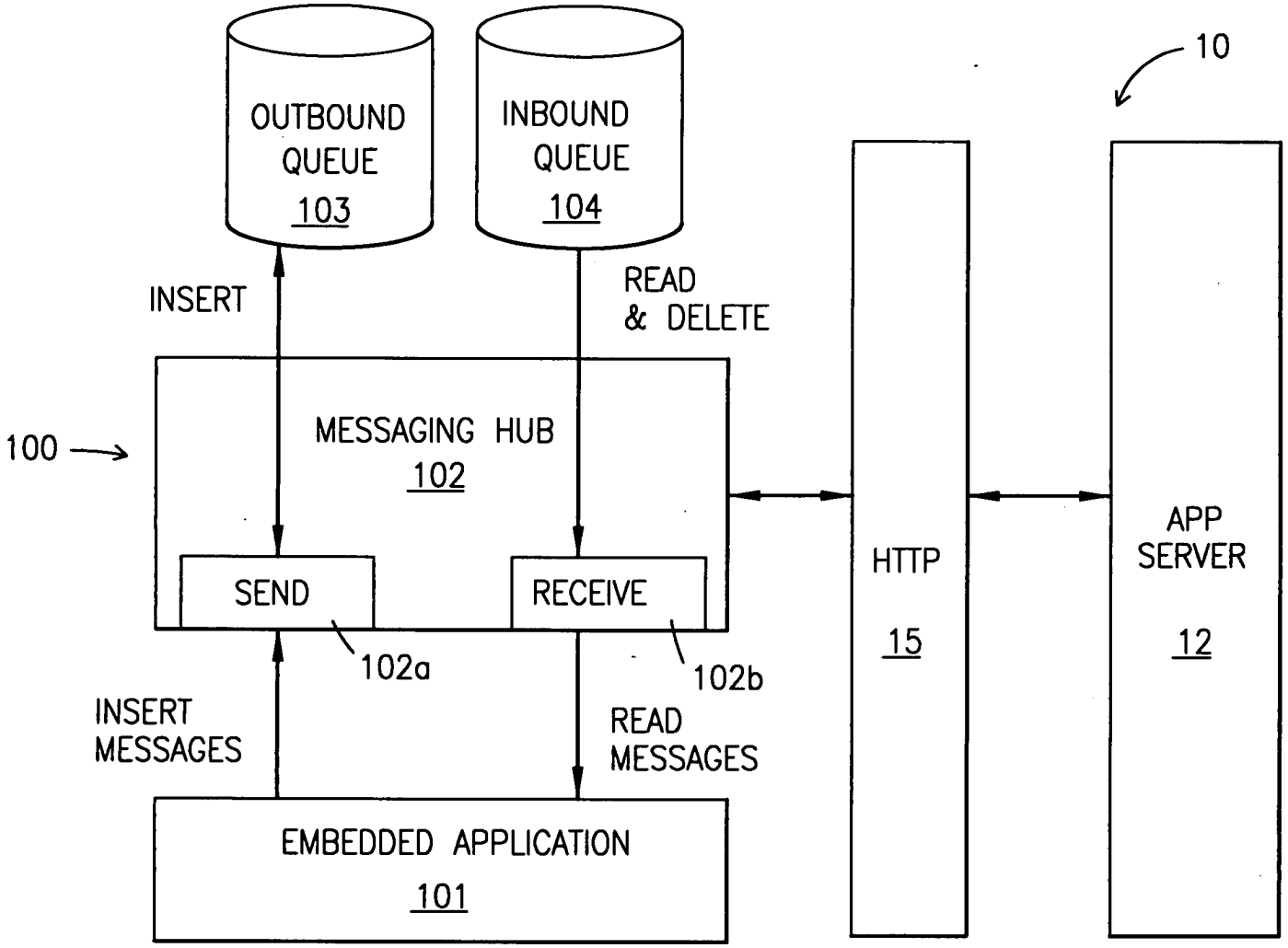

OUTBOUND QUEUE 103
INBOUND QUEUE 104
10
INSERT
READ & DELETE
100
MESSAGING HUB 102
SEND
RECEIVE
HTTP 15
APP SERVER 12
102a
102b
INSERT MESSAGES
READ MESSAGES
EMBEDDED APPLICATION 101

Fig. 4

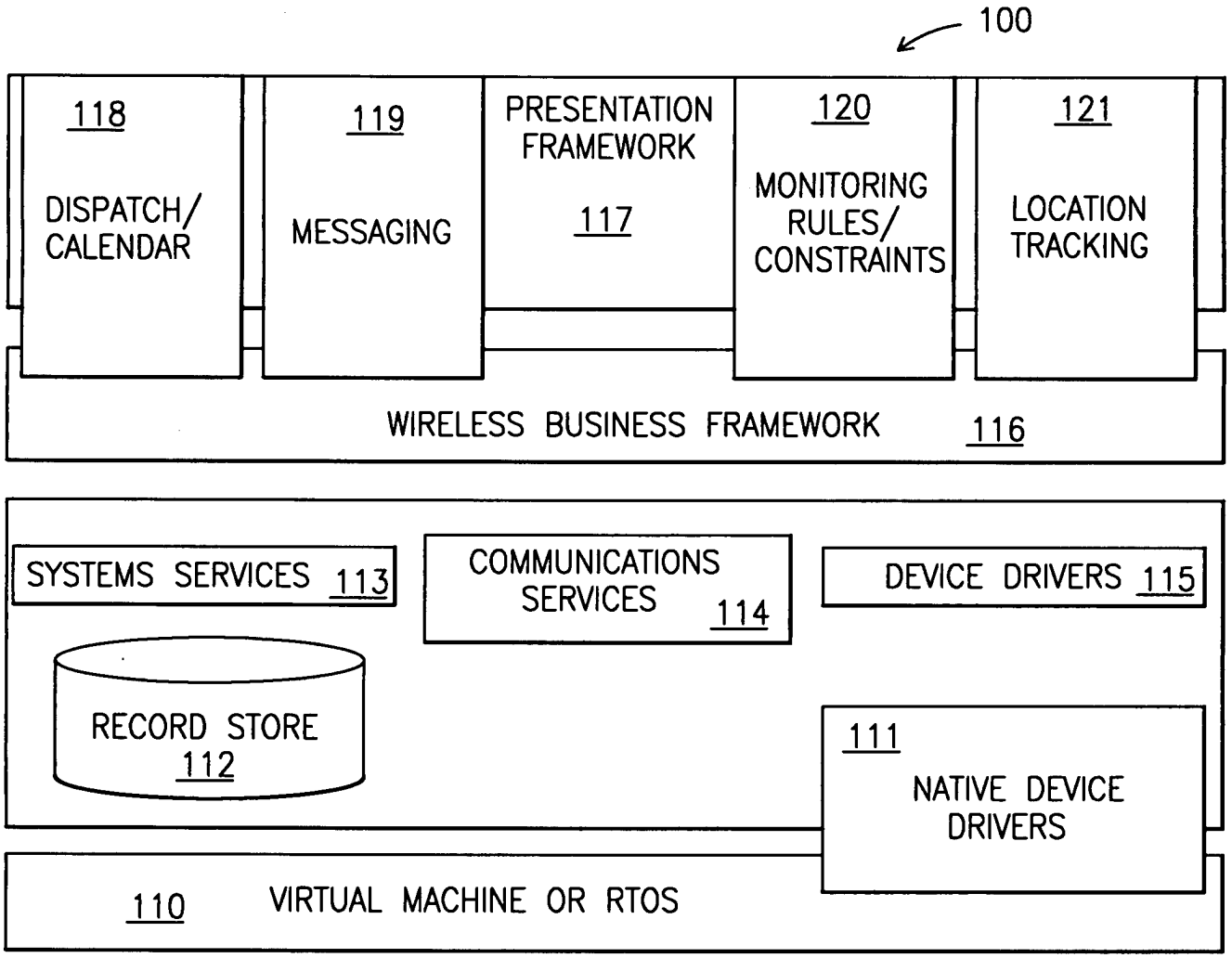

100
118
DISPATCH/
CALENDAR
119
MESSAGING
PRESENTATION
FRAMEWORK
117
120
MONITORING
RULES/
CONSTRAINTS
121
LOCATION
TRACKING
WIRELESS BUSINESS FRAMEWORK
116
SYSTEMS SERVICES 113
COMMUNICATIONS
SERVICES
114
DEVICE DRIVERS 115
RECORD STORE
112
111
NATIVE DEVICE
DRIVERS
110
VIRTUAL MACHINE OR RTOS

Fig. 5

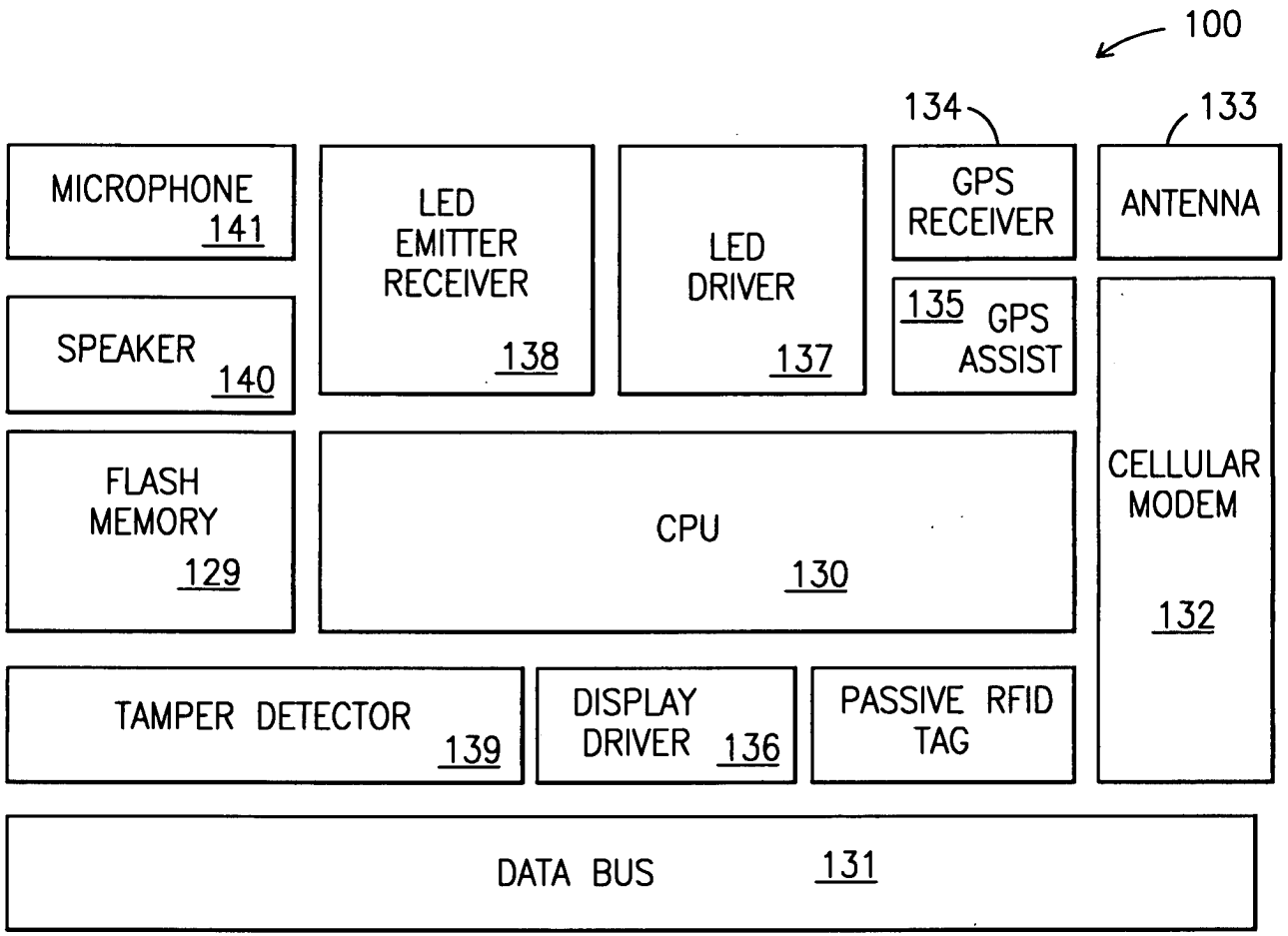

100
134
133
MICROPHONE
141
LED
EMITTER
RECEIVER
138
LED
DRIVER
137
GPS
RECEIVER
ANTENNA
SPEAKER
140
135 GPS
ASSIST
FLASH
MEMORY
129
CPU
130
CELLULAR
MODEM
132
TAMPER DETECTOR
139
DISPLAY
DRIVER 136
PASSIVE RFID
TAG
DATA BUS
131

Fig. 6

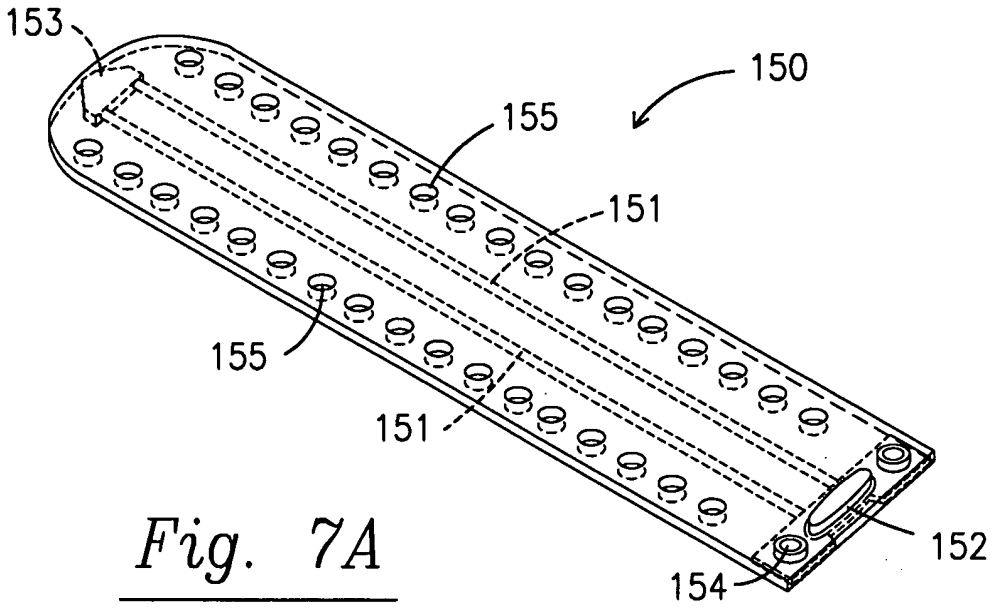

153
150
155
151
155
151
152
154

Fig. 7A

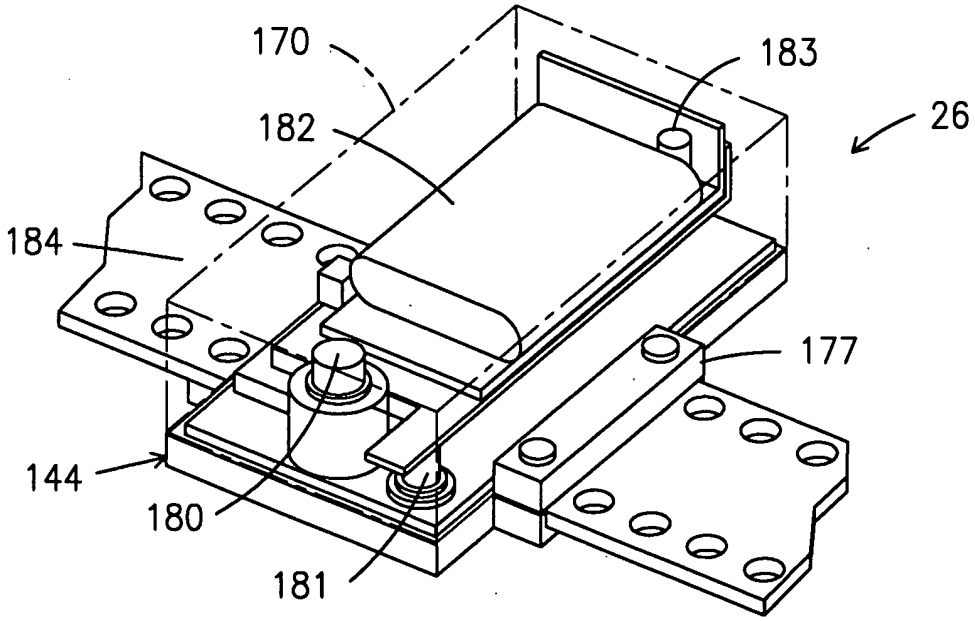

170
183
182
26
184
177
144
180
181

Fig. 7B

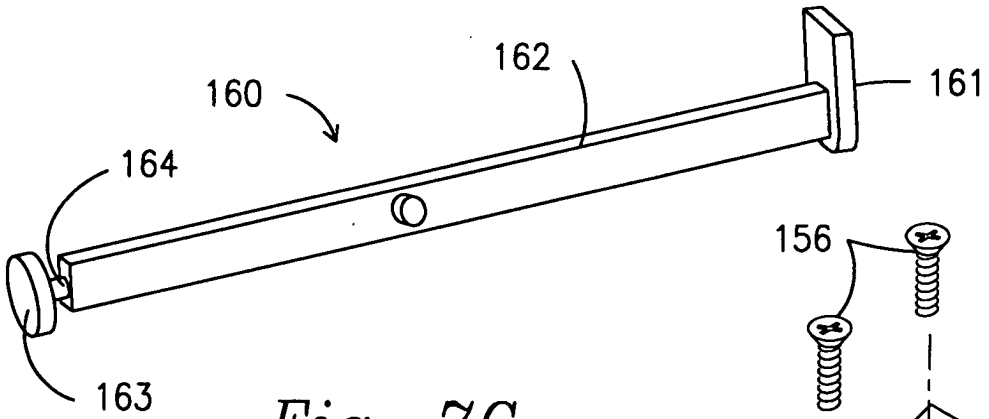

160
162
161
164
163

Fig. 7C

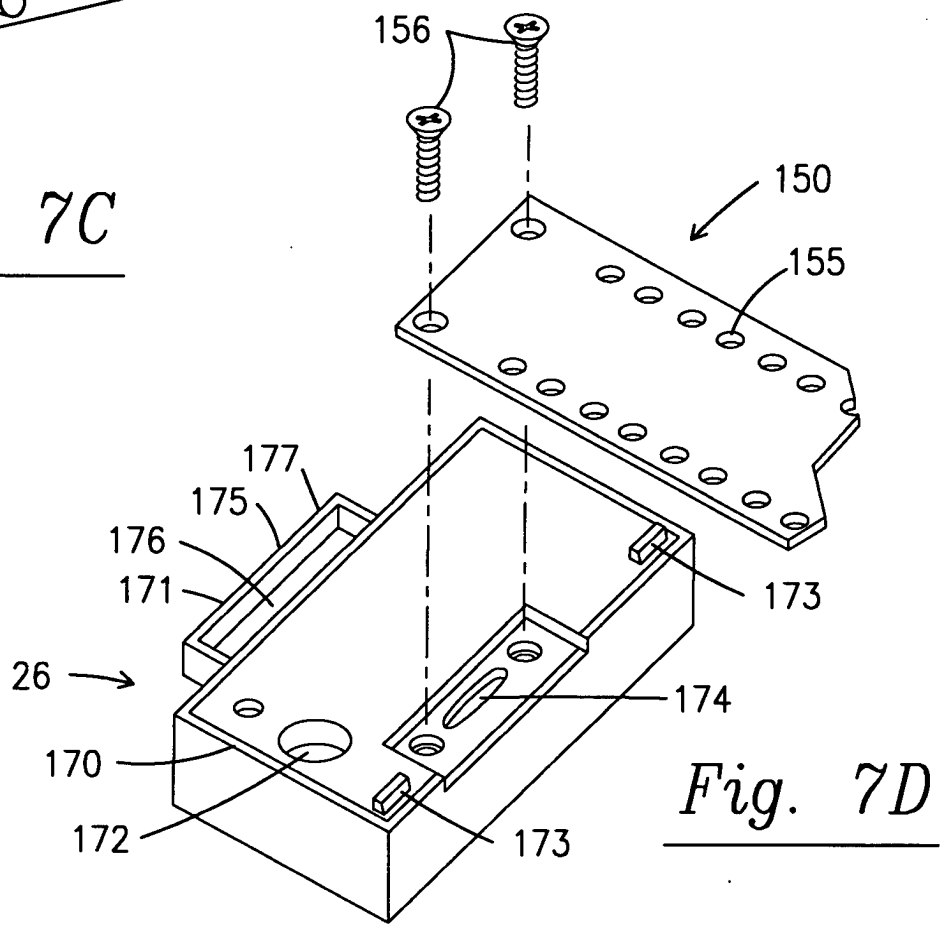

156
150
155
177
175
176
171
173
26
174
170
172
173

Fig. 7D

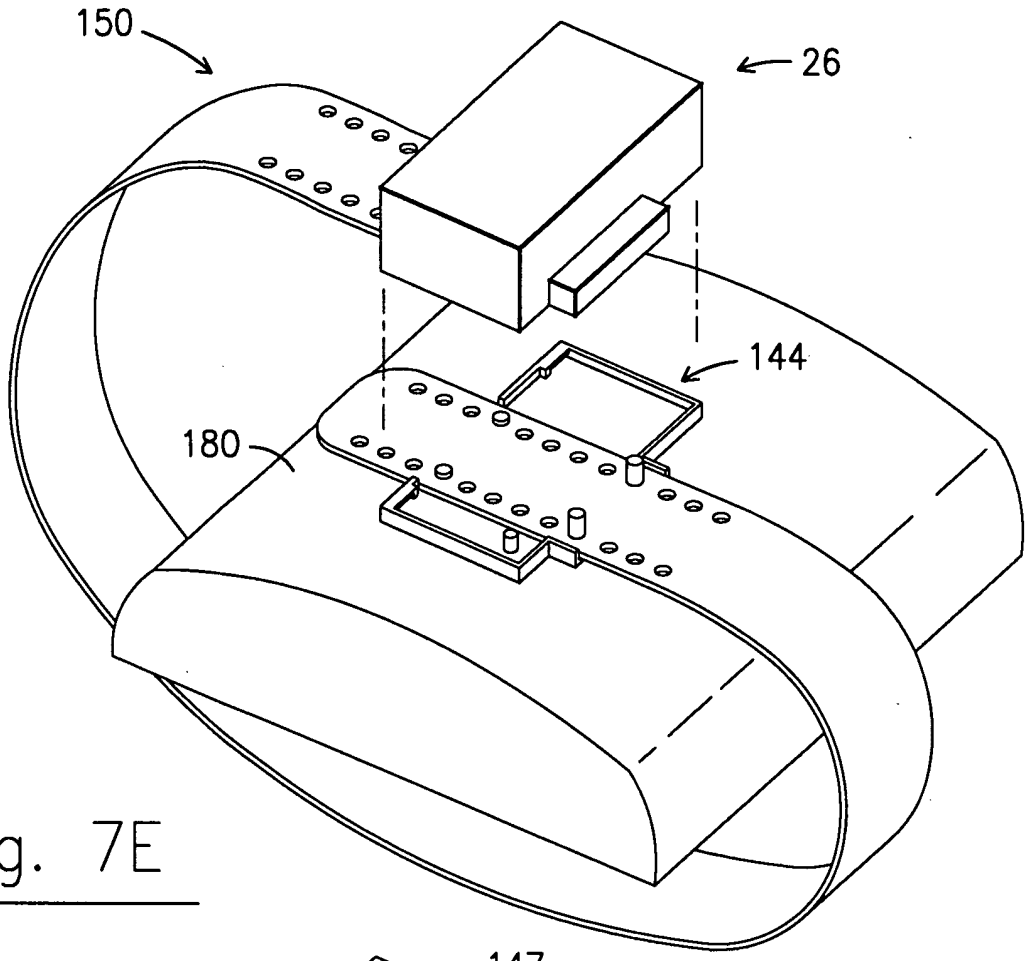


Fig. 7E

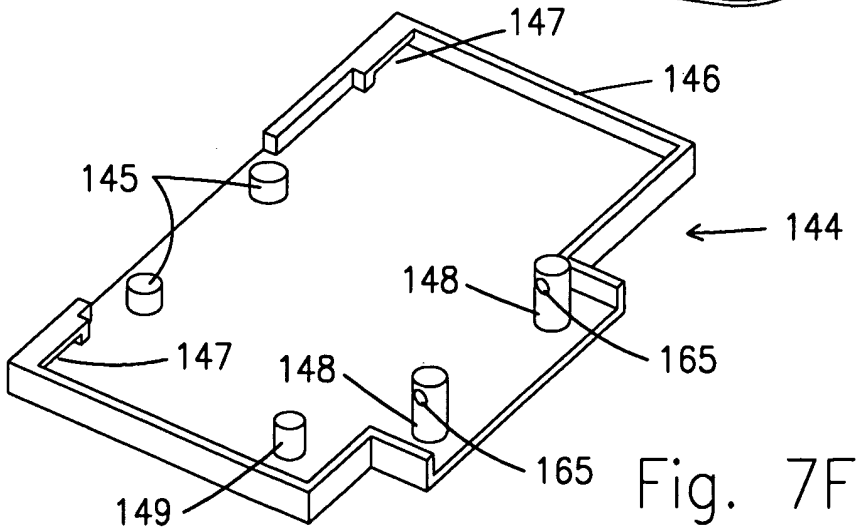


Fig. 7F

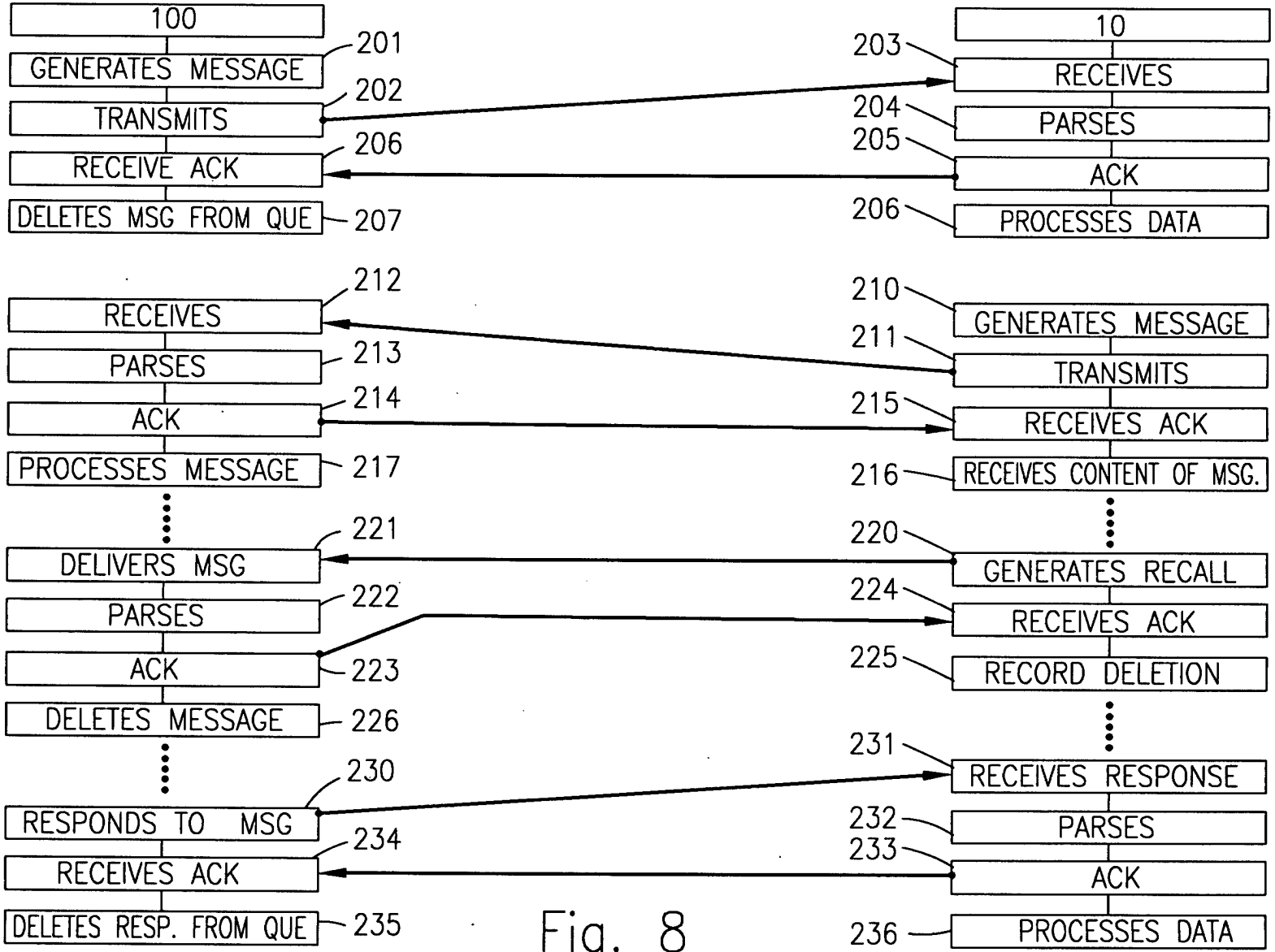

100
GENERATES MESSAGE
201
TRANSMITS
202
RECEIVE ACK
206
DELETES MSG FROM QUE
207
10
203
RECEIVES
204
PARSES
205
ACK
206
PROCESSES DATA
212
RECEIVES
PARSES
213
ACK
214
PROCESSES MESSAGE
217
210
GENERATES MESSAGE
211
TRANSMITS
215
RECEIVES ACK
216
RECEIVES CONTENT OF MSG.
221
DELIVERS MSG
PARSES
222
ACK
223
DELETES MESSAGE
226
220
GENERATES RECALL
224
RECEIVES ACK
225
RECORD DELETION
230
RESPONDS TO MSG
234
RECEIVES ACK
DELETES RESP. FROM QUE
235
231
RECEIVES RESPONSE
232
PARSES
233
ACK
236
PROCESSES DATA

Fig. 8

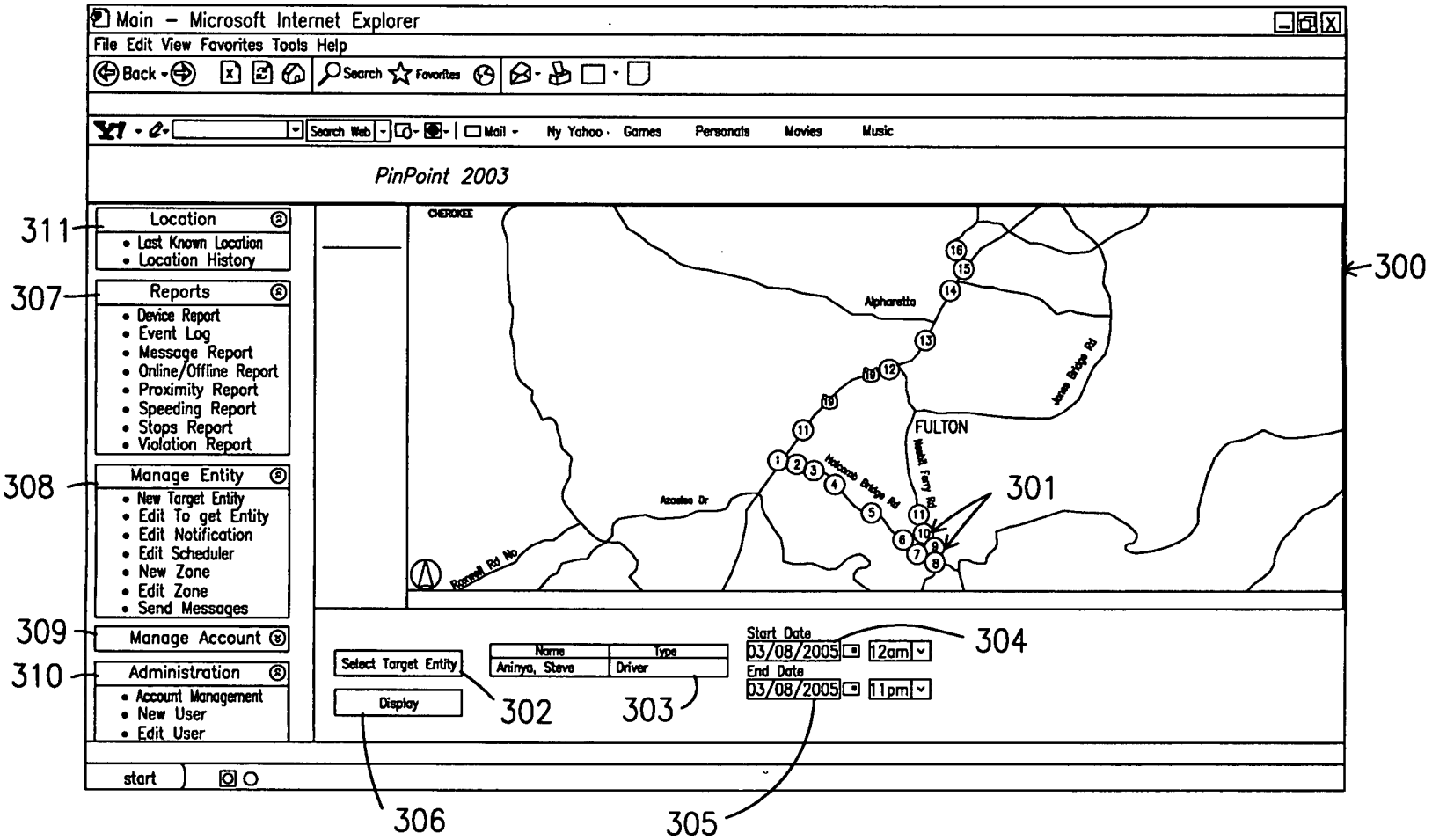
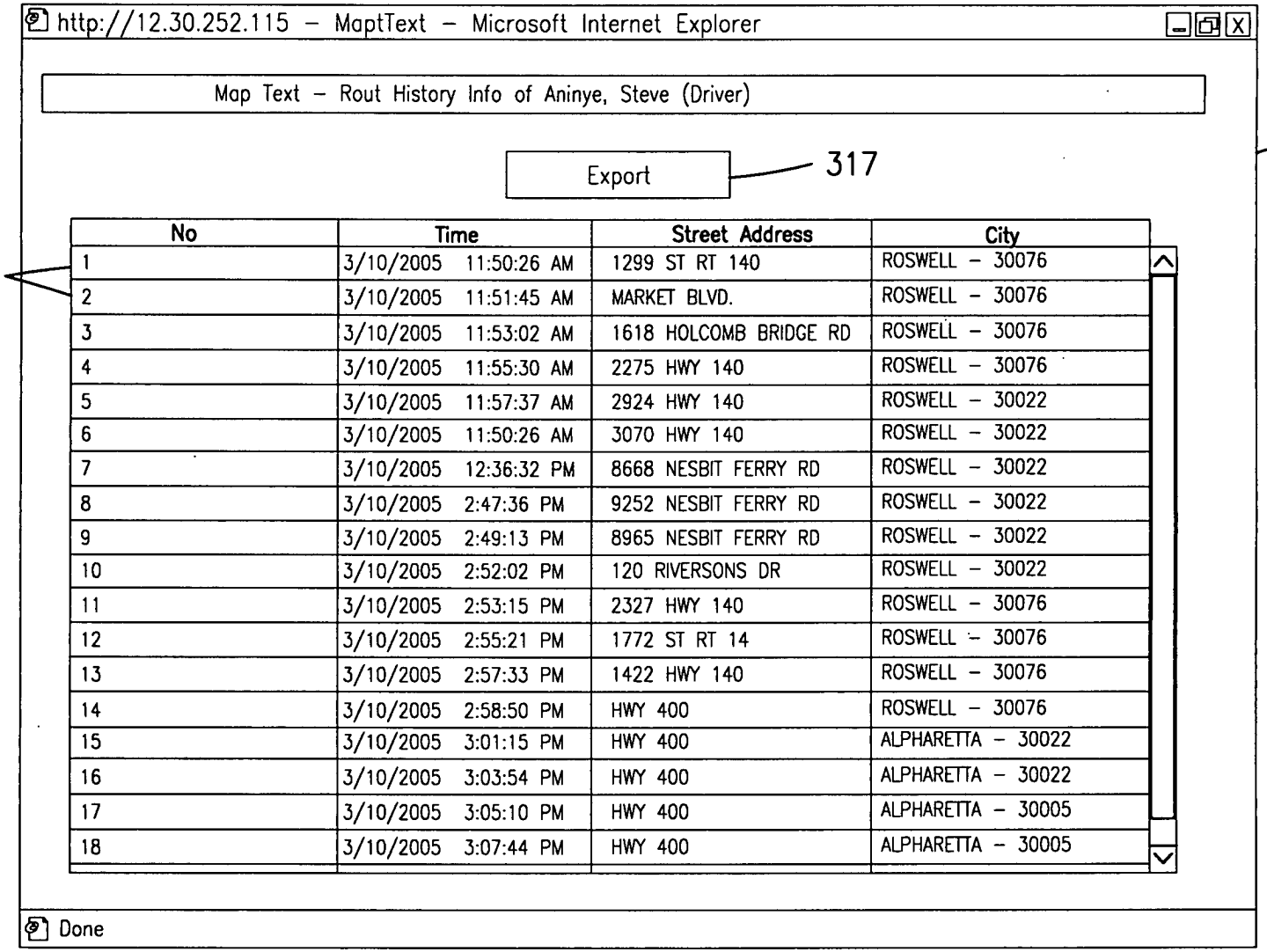
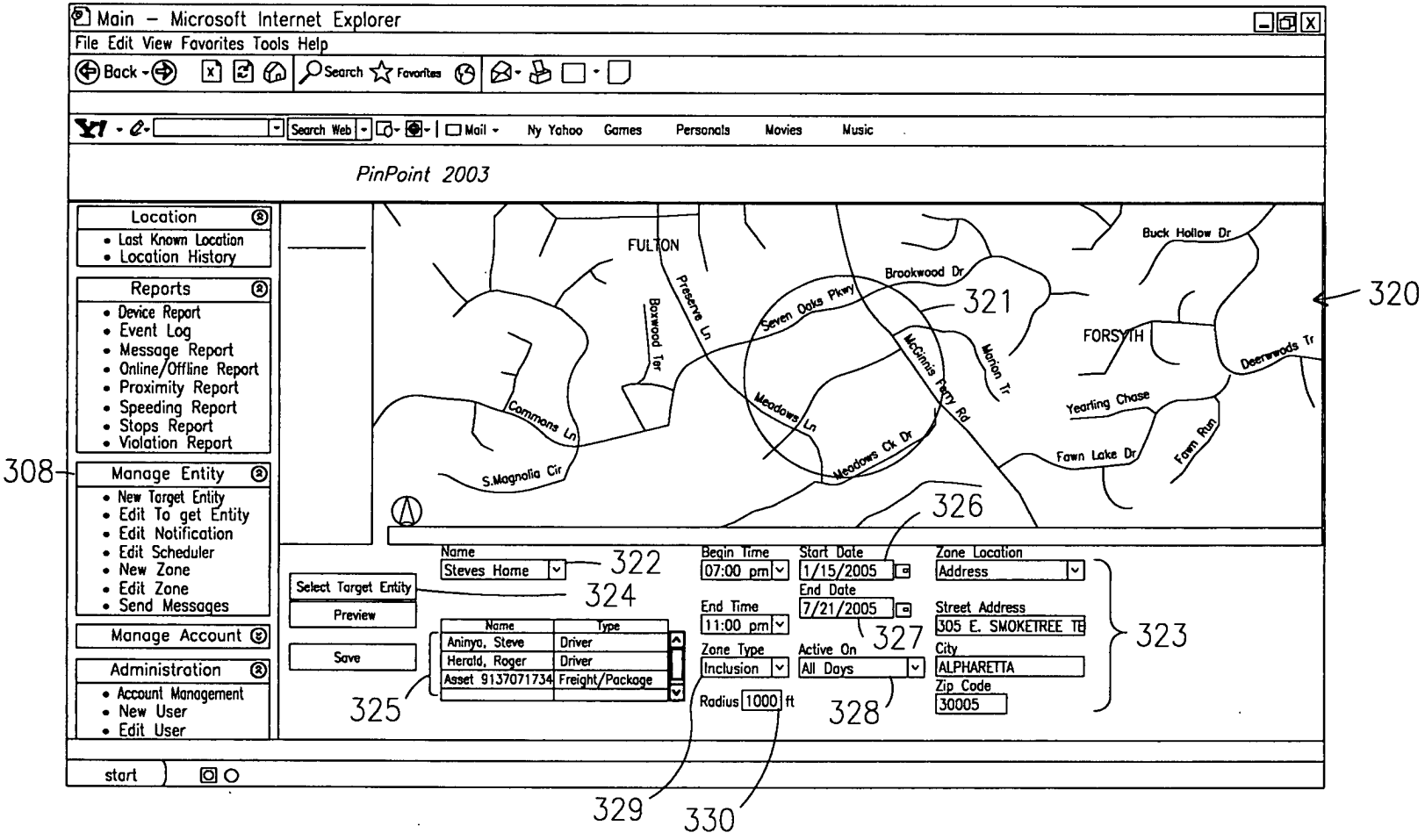

Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Search Web
Mail
My Yahoo
Games
Personals
Movies
Music
PinPoint 2003
Location
Last Known Location
Location History
Reports
Device Report
Event Log
Message Report
Online/Offline Report
Proximity Report
Speeding Report
Stops Report
Violation Report
Manage Entity
New Target Entity
Edit To get Entity
Edit Notification
Edit Scheduler
New Zone
Edit Zone
Send Messages
Manage Account
Administration
Account Management
New User
Edit User
CHEROKEE
Alpharetta
FULTON
Azalea Dr
Name
Type
Anirya, Steve
Driver
Select Target Entity
Display
Start Date
03/08/2005
12am
End Date
03/08/2005
11pm
start
311
307
308
309
310
300
301
302
303
304
305
306

Fig. 9A



No	Time	Street Address	City
1	3/10/2005 11:50:26 AM	1299 ST RT 140	ROSWELL – 30076
2	3/10/2005 11:51:45 AM	MARKET BLVD.	ROSWELL – 30076
3	3/10/2005 11:53:02 AM	1618 HOLCOMB BRIDGE RD	ROSWELL – 30076
4	3/10/2005 11:55:30 AM	2275 HWY 140	ROSWELL – 30076
5	3/10/2005 11:57:37 AM	2924 HWY 140	ROSWELL – 30022
6	3/10/2005 11:50:26 AM	3070 HWY 140	ROSWELL – 30022
7	3/10/2005 12:36:32 PM	8668 NESBIT FERRY RD	ROSWELL – 30022
8	3/10/2005 2:47:36 PM	9252 NESBIT FERRY RD	ROSWELL – 30022
9	3/10/2005 2:49:13 PM	8965 NESBIT FERRY RD	ROSWELL – 30022
10	3/10/2005 2:52:02 PM	120 RIVERSONS DR	ROSWELL – 30022
11	3/10/2005 2:53:15 PM	2327 HWY 140	ROSWELL – 30076
12	3/10/2005 2:55:21 PM	1772 ST RT 14	ROSWELL – 30076
13	3/10/2005 2:57:33 PM	1422 HWY 140	ROSWELL – 30076
14	3/10/2005 2:58:50 PM	HWY 400	ROSWELL – 30076
15	3/10/2005 3:01:15 PM	HWY 400	ALPHARETTA – 30022
16	3/10/2005 3:03:54 PM	HWY 400	ALPHARETTA – 30022
17	3/10/2005 3:05:10 PM	HWY 400	ALPHARETTA – 30005
18	3/10/2005 3:07:44 PM	HWY 400	ALPHARETTA – 30005

Fig. 9B


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Search Web
Mail
My Yahoo
Games
Personals
Movies
Music
PinPoint 2003
Location
Last Known Location
Location History
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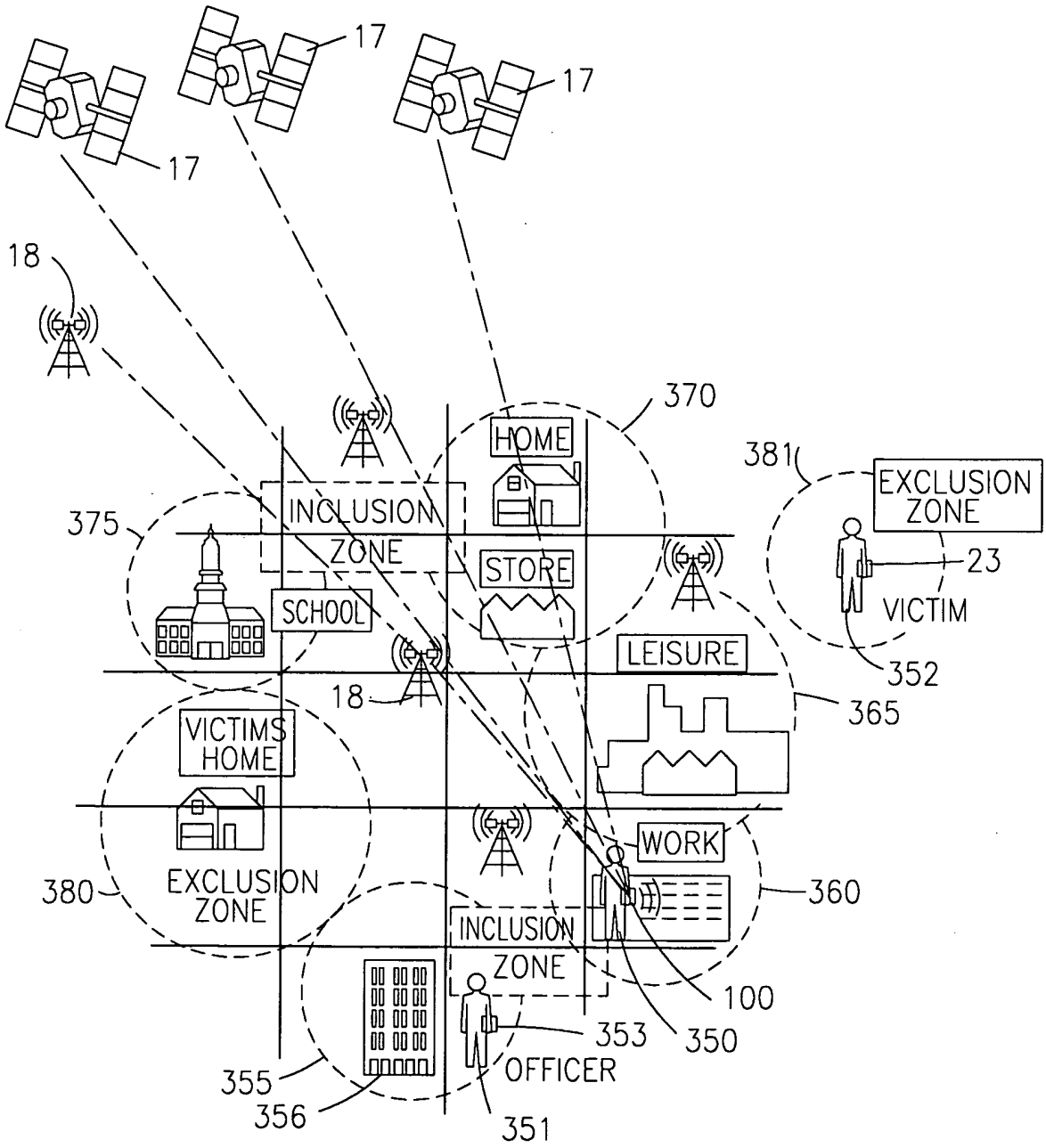
Device Report
Event Log
Message Report
Online/Offline Report
Proximity Report
Speeding Report
Stops Report
Violation Report
Manage Entity
New Target Entity
Edit To get Entity
Edit Notification
Edit Scheduler
New Zone
Edit Zone
Send Messages
Manage Account
Administration
Account Management
New User
Edit User
FULTON
Preserve Ln
Boxwood Ter
Seven Oaks Pkwy
Brookwood Dr
Buck Hollow Dr
McGinnis Ferry Rd
Marion Tr
FORSYTH
Deerwoods Tr
Yearling Chase
Fawn Lake Dr
Fawn Run
Commons Ln
S.Magnolia Cir
Meadows Ln
Meadows Ck Dr
Name
Steves Home
Select Target Entity
Preview
Save
Name
Type
Aninya, Steve
Driver
Herald, Roger
Driver
Asset 9137071734
Freight/Package
Begin Time
07:00 pm
End Time
11:00 pm
Zone Type
Inclusion
Radius
1000
ft
Start Date
1/15/2005
End Date
7/21/2005
Active On
All Days
Zone Location
Address
Street Address
305 E. SMOKETREE TE
City
ALPHARETTA
Zip Code
30005
start
308
320
321
322
323
324
325
326
327
328
329
330

Fig. 10A


17
17
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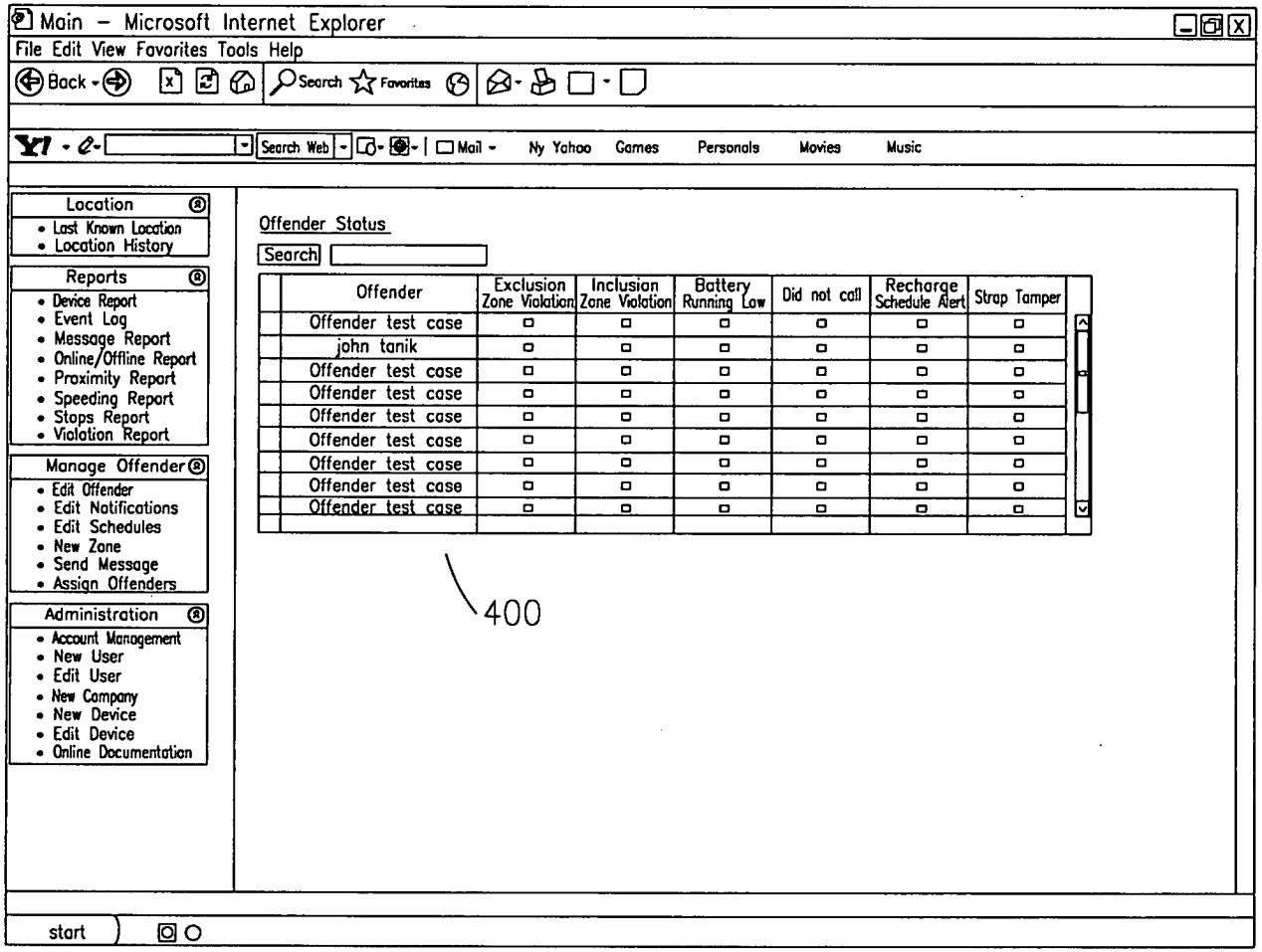
370
HOME
381
EXCLUSION ZONE
375
INCLUSION ZONE
STORE
23
VICTIM
SCHOOL
LEISURE
352
365
VICTIMS HOME
WORK
380
EXCLUSION ZONE
360
INCLUSION ZONE
100
353
350
OFFICER
355
356
351

Fig. 10B


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
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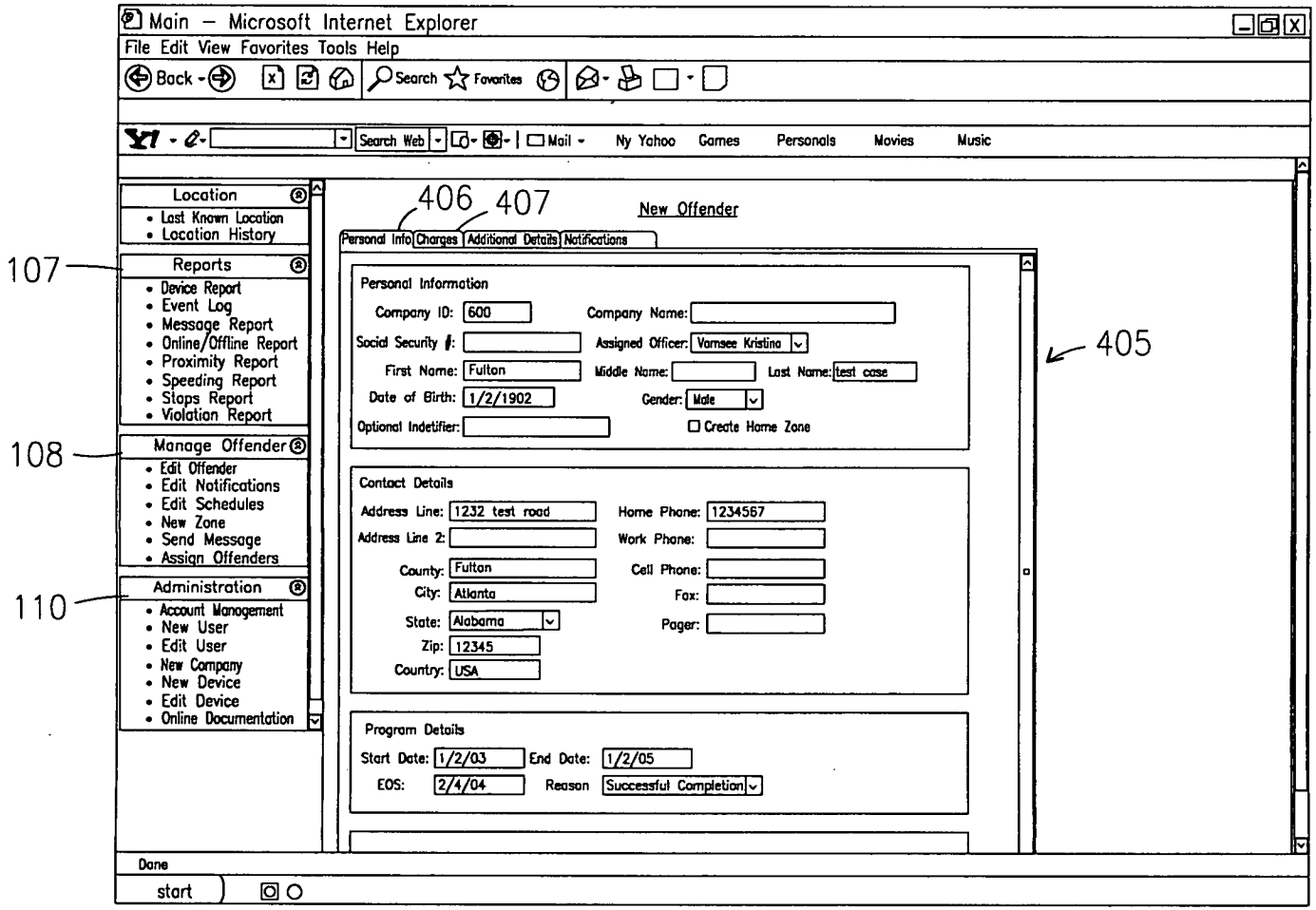
Proximity Report
Speeding Report
Stops Report
Violation Report
Manage Offender
Edit Offender
Edit Notifications
Edit Schedules
New Zone
Send Message
Assign Offenders
Administration
Account Management
New User
Edit User
New Company
New Device
Edit Device
Online Documentation
Offender Status
Search
Offender
Exclusion Zone Violation
Inclusion Zone Violation
Battery Running Low
Did not call
Recharge Schedule Alert
Strap Tamper
Offender test case
john tanik
Offender test case
Offender test case
Offender test case
Offender test case
Offender test case
Offender test case
Offender test case
400
start

Fig. 11


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
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Violation Report
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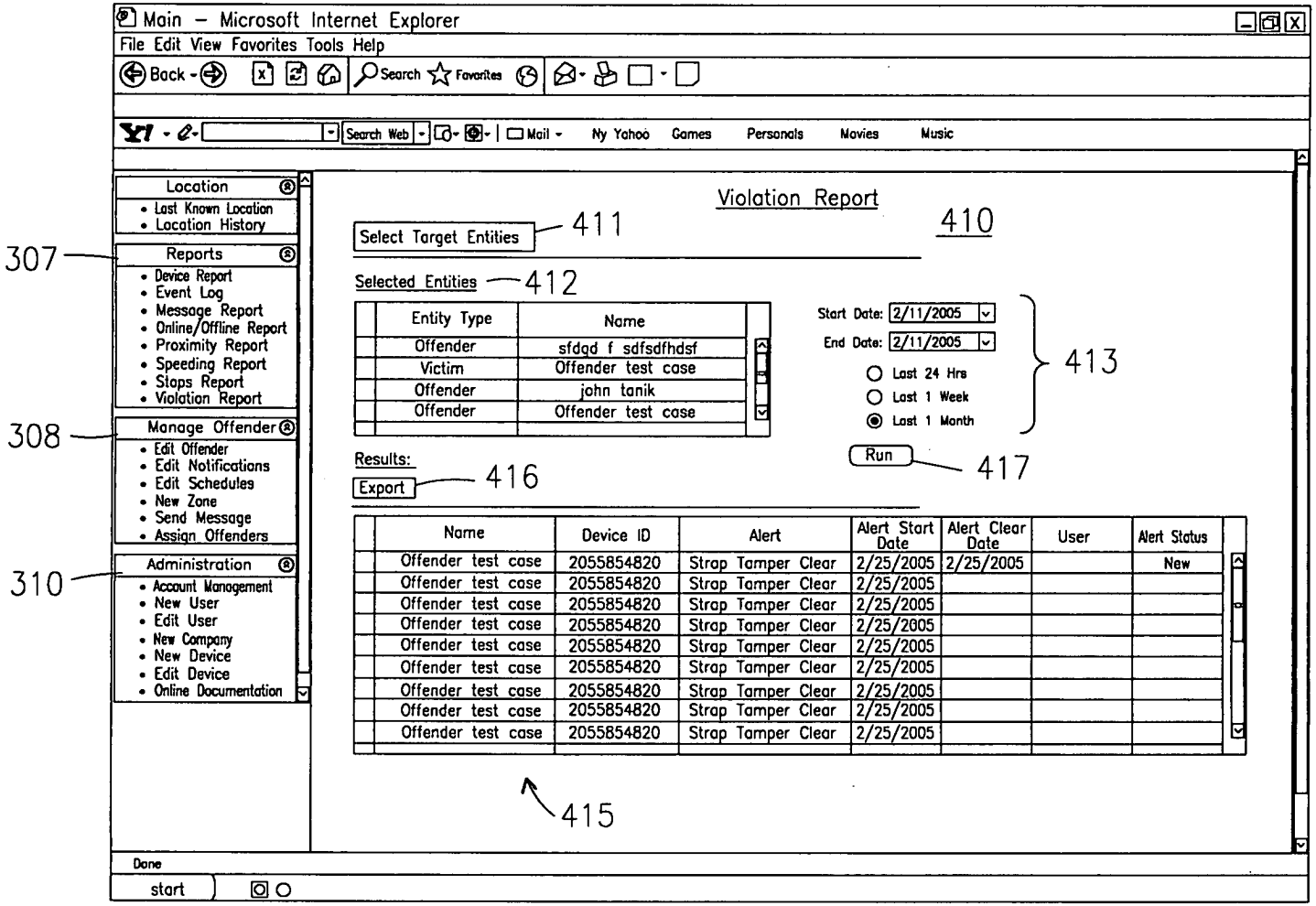
Edit Offender
Edit Notifications
Edit Schedules
New Zone
Send Message
Assign Offenders
Administration
Account Management
New User
Edit User
New Company
New Device
Edit Device
Online Documentation
406
407
New Offender
Personal Info
Charges
Additional Details
Notifications
Personal Information
Company ID: 600
Company Name:
Social Security #:
Assigned Officer: Vamsee Kristina
First Name: Fulton
Middle Name:
Last Name: test case
Date of Birth: 1/2/1902
Gender: Male
Optional Indetifier:
Create Home Zone
Contact Details
Address Line: 1232 test road
Home Phone: 1234567
Address Line 2:
Work Phone:
County: Fulton
Cell Phone:
City: Atlanta
Fax:
State: Alabama
Pager:
Zip: 12345
Country: USA
Program Details
Start Date: 1/2/03
End Date: 1/2/05
EOS: 2/4/04
Reason: Successful Completion
Done
start
107
108
110
405

Fig. 12


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
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Search
Favorites
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Games
Personals
Movies
Music
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• Edit Notifications
• Edit Schedules
• New Zone
• Send Message
• Assign Offenders
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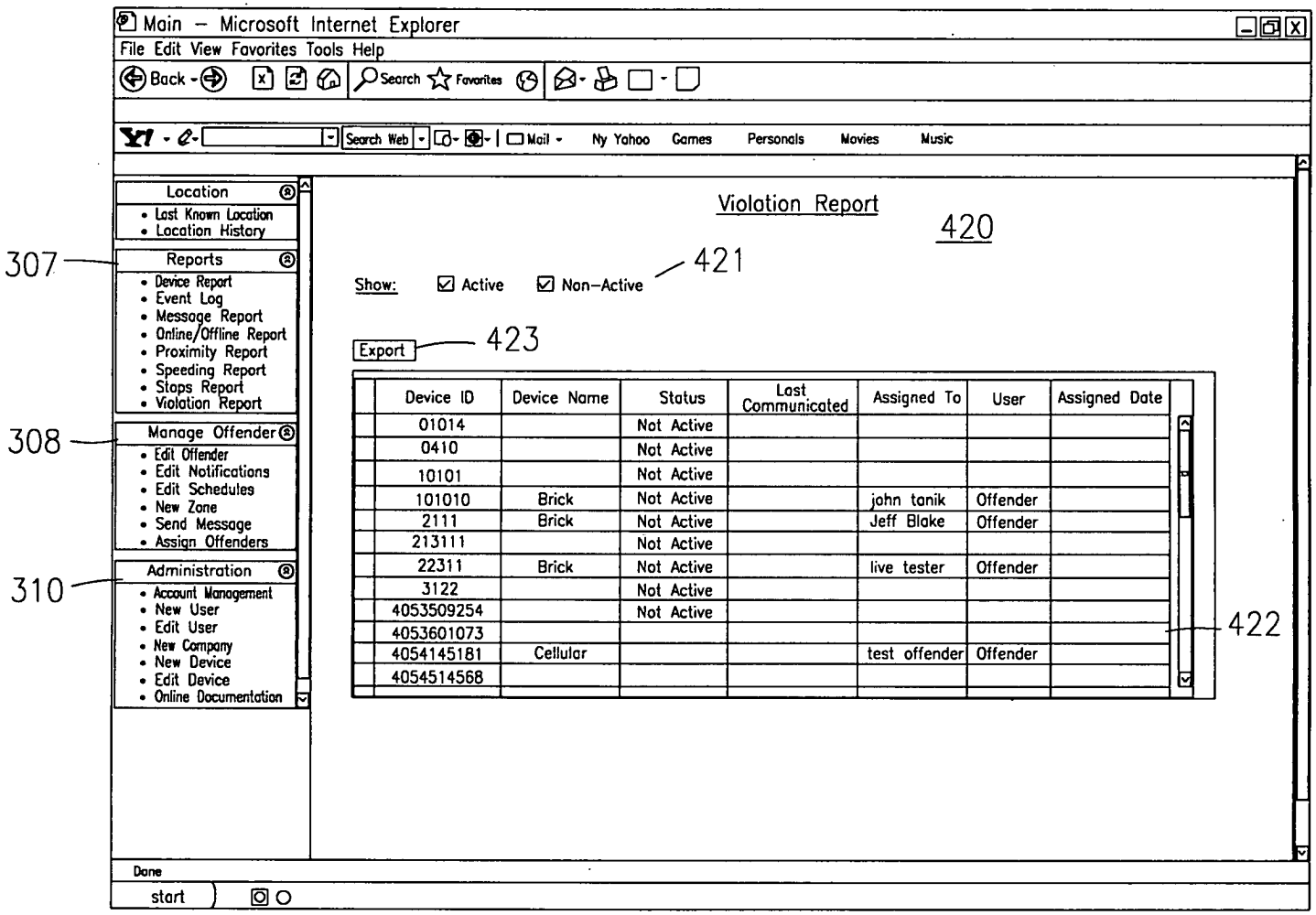
• Account Management
• New User
• Edit User
• New Company
• New Device
• Edit Device
• Online Documentation
307
308
310
Violation Report
410
Select Target Entities
411
Selected Entities
412
Entity Type
Name
Offender
sfdgd f sdfsdfhdsf
Victim
Offender test case
Offender
john tanik
Offender
Offender test case
Start Date: 2/11/2005
End Date: 2/11/2005
Last 24 Hrs
Last 1 Week
Last 1 Month
413
Run
417
Results:
Export
416
Name
Device ID
Alert
Alert Start Date
Alert Clear Date
User
Alert Status
Offender test case
2055854820
Strap Tamper Clear
2/25/2005
New
415
Done
start

Fig. 13


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
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My Yahoo
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Personals
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Stops Report
Violation Report
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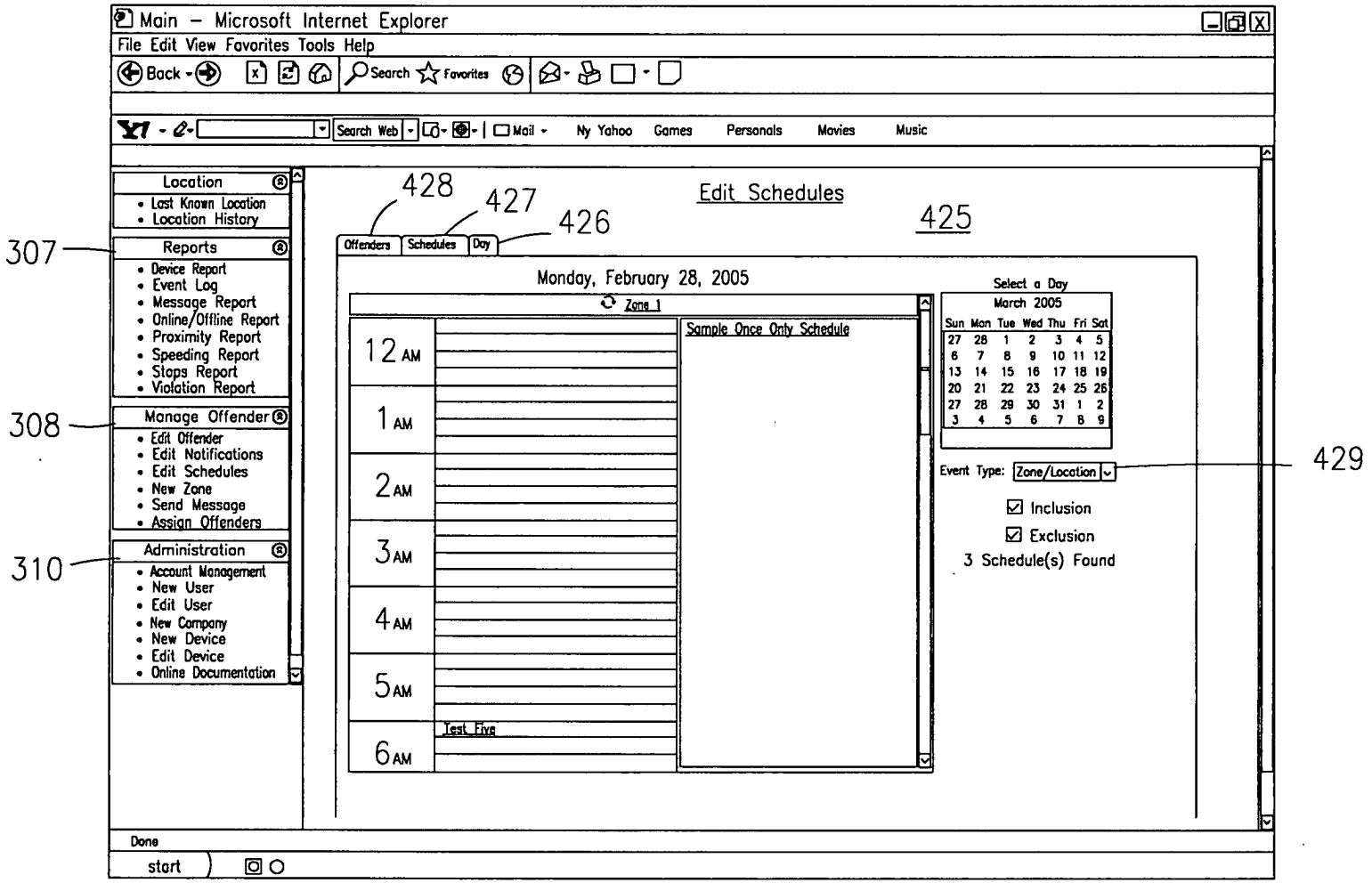
Edit Notifications
Edit Schedules
New Zone
Send Message
Assign Offenders
310
Administration
Account Management
New User
Edit User
New Company
New Device
Edit Device
Online Documentation
Violation Report
420
Show:
Active
Non-Active
421
Export
423
Device ID
Device Name
Status
Last Communicated
Assigned To
User
Assigned Date
01014 Not Active
0410 Not Active
10101 Not Active
101010 Brick Not Active john tanik Offender
2111 Brick Not Active Jeff Blake Offender
213111 Not Active
22311 Brick Not Active live tester Offender
3122 Not Active
4053509254 Not Active
4053601073
4054145181 Cellular test offender Offender
4054514568
422
Done
start

Fig. 14


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
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My Yahoo
Games
Personals
Movies
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• Send Message
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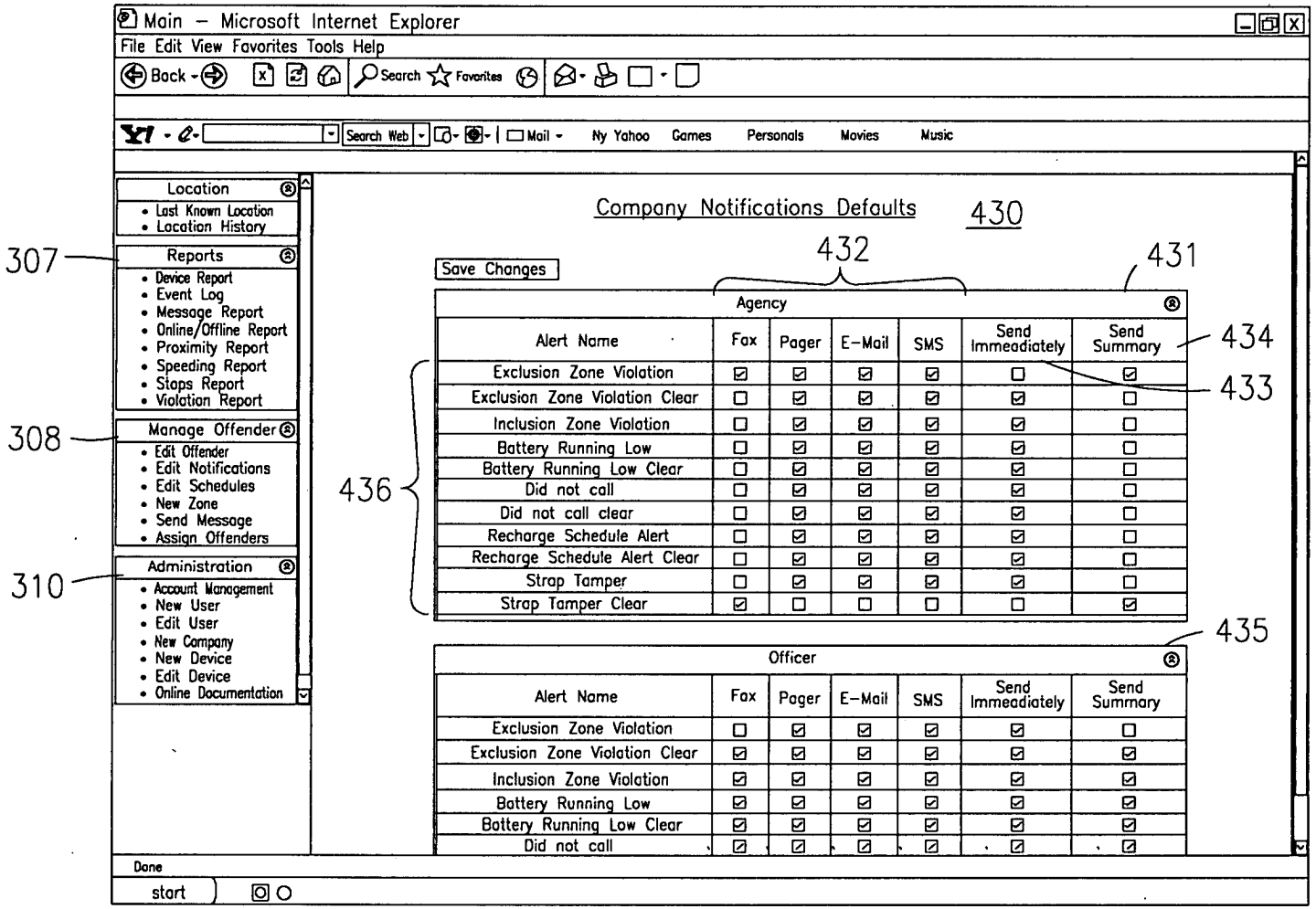
Administration
• Account Management
• New User
• Edit User
• New Company
• New Device
• Edit Device
• Online Documentation
307
308
310
428
427
426
Edit Schedules
425
Offenders
Schedules
Day
Monday, February 28, 2005
Zone 1
12 AM
1 AM
2 AM
3 AM
4 AM
5 AM
6 AM
Sample Once Only Schedule
Test Five
Select a Day
March 2005
Sun Mon Tue Wed Thu Fri Sat
27 28 1 2 3 4 5
6 7 8 9 10 11 12
13 14 15 16 17 18 19
20 21 22 23 24 25 26
27 28 29 30 31 1 2
3 4 5 6 7 8 9
Event Type: Zone/Location
429
Inclusion
Exclusion
3 Schedule(s) Found
Done
start

Fig. 15


Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Search Web
Mail
My Yahoo
Games
Personals
Movies
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Location
Last Known Location
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Edit Notifications
Edit Schedules
New Zone
Send Message
Assign Offenders
310
Administration
Account Management
New User
Edit User
New Company
New Device
Edit Device
Online Documentation
Company Notifications Defaults
430
Save Changes
432
431
Agency
Alert Name
Fax
Pager
E-Mail
SMS
Send Immeadiately
Send Summary
434
433
436
Exclusion Zone Violation
Exclusion Zone Violation Clear
Inclusion Zone Violation
Battery Running Low
Battery Running Low Clear
Did not call
Did not call clear
Recharge Schedule Alert
Recharge Schedule Alert Clear
Strap Tamper
Strap Tamper Clear
435
Officer
Alert Name
Fax
Pager
E-Mail
SMS
Send Immeadiately
Send Summary
Exclusion Zone Violation
Exclusion Zone Violation Clear
Inclusion Zone Violation
Battery Running Low
Battery Running Low Clear
Did not call
Done
start

Fig. 16

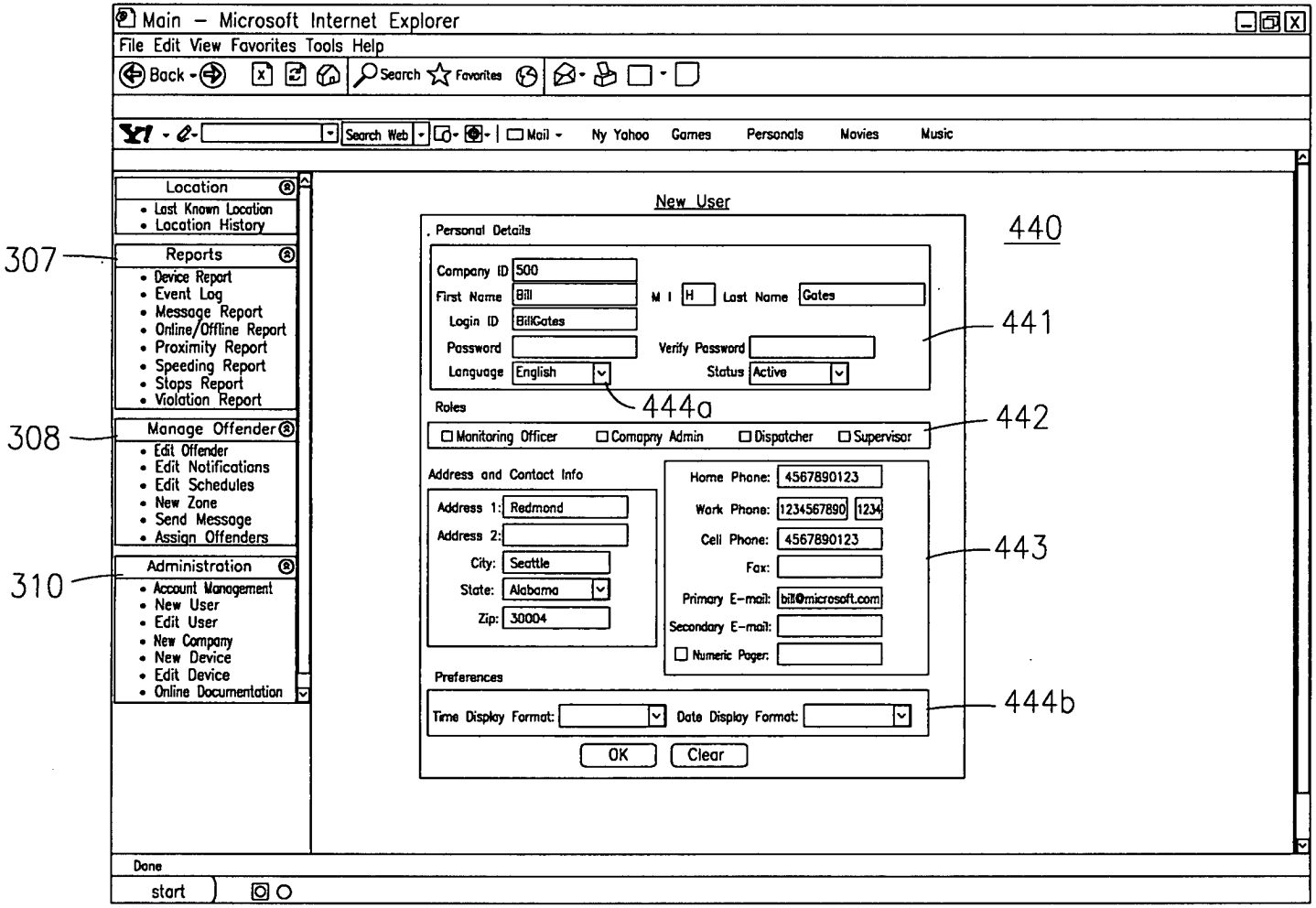
Main – Microsoft Internet Explorer
File Edit View Favorites Tools Help
Back
Search
Favorites
Search Web
Mail
My Yahoo
Games
Personals
Movies
Music
Location
Last Known Location
Location History
Reports
Device Report
Event Log
Message Report
Online/Offline Report
Proximity Report
Speeding Report
Stops Report
Violation Report
Manage Offender
Edit Offender
Edit Notifications
Edit Schedules
New Zone
Send Message
Assign Offenders
Administration
Account Management
New User
Edit User
New Company
New Device
Edit Device
Online Documentation
New User
Personal Details
Company ID 500
First Name Bill
M I H
Last Name Gates
Login ID BillGates
Password
Verify Password
Language English
Status Active
Roles
Monitoring Officer
Company Admin
Dispatcher
Supervisor
Address and Contact Info
Address 1: Redmond
Address 2:
City: Seattle
State: Alabama
Zip: 30004
Home Phone: 4567890123
Work Phone: 1234567890 1234
Cell Phone: 4567890123
Fax:
Primary E-mail: bill@microsoft.com
Secondary E-mail:
Numeric Pager:
Preferences
Time Display Format:
Date Display Format:
OK
Clear
Done
start
307
308
310
440
441
442
443
444a
444b

Fig. 17